

REMARKS

In view of the above amendments and the following remarks, Applicants request favorable reconsideration and allowance of the above-identified application.

Claims 27-44 remain pending in this application with Claims 27 and 37 being independent. By this Amendment, Applicants have amended Claims 27 and 37.

Claims 27-30, 32, 34-39, 41, 43 and 44 stand rejected under 35 U.S.C. § 102 over Japanese Laid-Open Application No. 10-244707 (Asami). Claims 31 and 40 stand rejected under 35 U.S.C. § 103 over Asami in view of U.S. Patent No. 5,408,493 (Aoki). Claims 33 and 42 stand rejected under 35 U.S.C. § 103 as being unpatentable over Asami in view of U.S. Patent No. 5,999,345 (Nakajima, et al.). Applicants traverse these rejections.

As recited in independent Claim 1, Applicants' invention is directed to a multi-beam scanning apparatus. The apparatus comprises a laser light source that includes a laser chip having a plurality of emission points for emitting laser beams and a terminal for energizing the laser chip. A driving circuit board is connected to the terminal and has a longitudinal edge. A housing supports the light source unit (including the laser light source and the driving circuit board) on a wall of the housing. The laser light source is fixed to the driving circuit board such that a straight line passing the plurality of emission points of the laser light source is inclined with respect to the longitude edge of the driving circuit board.

Claim 37 is directed to a multi-beam light source unit which is configured similarly to the light source unit of independent Claim 27.

With such a configuration that the light source is fixed to the driving circuit board so that a straight line passing a plurality of emission points is inclined with respect to the longitudinal edge of the board, the distance between the laser beams can be adjusted by inclining or rotating the array of emission points, without having the edges of the driving circuit board protrude significantly over predetermined size limitations.

Asami describes an inclined laser array in which each lead pin 1a of the semiconductor laser 1 is fixed to a small substrate 15. The pins are not fixed to driving substrate 14. Accordingly, small substrate 15 is rotated for adjustment. Thus, Asami does not describe the inclination of emission points with respect to a longitudinal edge of the driving circuit board, without employing a small substrate separate from the driving circuit board.

Accordingly, Applicant submits that Asami fails to describe or to suggest at least the features of a laser light source being fixed to a driving circuit board such that a straight line passing a plurality of emission points of the laser light source is inclined with respect to a longitudinal edge of the driving circuit board, as in recited in independent Claim 27 and 37.

Aoki is directed to a method for adjusting the optical axis of a semiconductor laser. Nakagima, et al. is directed to a multi-beam light source with the light source section being supported so that it can be angularly adjusted. Neither of these documents remedy the deficiencies noted above with respect to Asami.

For the foregoing reasons, Applicants submit that independent claims are distinguishable over the applied patents, whether those patents are taken alone or in

combination, and request withdrawal of the rejections under §§ 102 and 103.

The remaining claims in the present application are dependent claims which depend from the independent claims discussed above, and thus are patentable over the documents of record for reasons noted above with respect to those independent claims. In addition, each recites features of the invention still further distinguishing it from the applied documents. Applicants request favorable and independent consideration thereof.

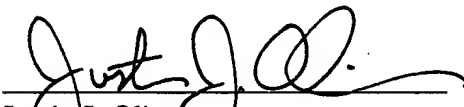
This Amendment After Final Rejection is an earnest attempt to advance prosecution and is believed to clearly place this application in condition for allowance. This Response was not earlier presented because Applicant earnestly believed that the prior Amendment placed the subject application in condition for allowance. Accordingly, Applicants respectfully requests entry of this Amendment under 37 C.F.R.

§ 1.116.

Applicants submit that this application is in condition for allowance, and request a Notice thereof.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


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**VERSIONS WITH MARKINGS TO SHOW
CHANGES MADE TO THE CLAIMS**

27. (Amended) A multi-beam scanning apparatus comprising:

a light source unit comprising a laser light source and a driving circuit board for driving said laser light source, said laser light source including a laser chip having a plurality of emission points for emitting laser beams and a terminal for energizing the laser chip, said driving circuit board being connected to the terminal of said laser light source and having a longitudinal edge;

scanning means for scanning a surface to be scanned with the laser beams emitted by said light source unit; and

a housing having a wall,

wherein said housing contains said scanning means and supports said light source unit on the wall, and

wherein [the terminal of] said laser light source is fixed to said driving circuit board such that a straight line passing the plurality of emission points of said laser light source is inclined with respect to the longitudinal edge of said driving circuit board.

37. (Amended) A multi-beam light source unit comprising:

a laser light source comprising a laser chip having a plurality of emission points for emitting laser beams and a terminal for energizing the laser chip; and
a driving circuit board for driving said laser light source, said driving circuit board having a longitudinal edge,

wherein [the terminal of] said laser light source is fixed to said driving circuit board such that a straight line passing the plurality of emission points of said laser light source is inclined with respect to the longitudinal edge of said driving circuit board.

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